ETHNOBOTANICAL STUDY OF MONOCOTYLEDONS OF DHANGIKUSUM VILLAGE OF BELPAHARI, JHARGRAM DISTRICT (WEST BENGAL), INDIA

SYNOPSIS

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Research Supervisor:

DR. ARPANA SHARMA

Associate Professor, Department of Botany

School of Science, YBN University

Research Scholar:

HAPPY DAS

Enrollment Number- YBNU 2201141

Department of Botany

School of Science, YBN University

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1. Introduction

Jhargram is a district of West Bengal, India. Which is situated in the southern part of the state under 22.3058° latitude and 86.9824° longitude and the total area is almost 3038 km^2. Red lateritic type of soil is found here. Large forest area, tourist spots and ancient temple are prime reason behind the popularity of this district.

Study area i.e. Dhangikusum is situated in Jhargram district, West Bengal, India. The area is under the latitude 22.6296° and longitude 86.6435° the area is known for a small waterfalls. This place is located about 52.6 km from the Jhargram town and 15.3 km from Belpahari. The adjoining areas of the study area is containing laterite soil. The vegetation of this area is mainly tropical mixed type. Maximum mean temperature and lowest mean temperature lies between± 42°C to ±8°C, these are the highest and lowest temperature during summer and winter season. Annual rainfall is about 1510 mm mostly within the months of June to September.

Waterfalls and its adjoining areas are dense jungle and hills, as the adjoining places of the study area are basically hill so soil erosion is one of the major threads. Monocots grows in this area are ethnobotanically important. The biodiversity of this particular vegetation is the reservoir of the resources as it produce food, medicines, wooden materials, building materials, fooder etc.

Ethnobotanical knowledge is a kind of practice where one generation passed down the information to its next generation and this pure knowledge will build up a mutual relationship between people and its natural habitat. Not only the relationship but it may enrich socio economic development.

Dhangikusum is a kind of place where hill, jungle and waterfalls are united together to provide the flavor of an ideal tourist spot, so, lots of people visit this place and its adjoining areas throughout the year. As this area become more popular in recent times so massive destruction could be hampered in recent future and the main problem is that some rare plant species are now become endangered. In this situation we need to protect the vegetation of this area to conserve the treasure trove.

2. Review of Literature

Ethnobotany is a branch of science which deals with the relationship of plants with ethnic people. Study of Ethno-botany reveals that there is a relationship between people and plants where people use plants as food, fooder, medicines, shelter, clothing, fuel and other essential purposes (Balick, 1996).

Cooke (1901-1908), Kanjilal et. al. (1934-1940), Patnaik and Patnaik (1956), Chavan and Sabnis (1961), Maheswari(1963), De (2002) and other researchers worked on the flora and their nature of distribution in various parts of India.

Lots of works have been made so far by the researchers where they chose Jhargram as their study area but when it comes to Belpahari then few research literatures are found. Vegetation of monocotyledon plants of Jhargram and its adjoining areas are very rich and local people of those areas depends on those plant products, people just not only use the plants but they protect the vegetation in terms of sacred grove, all these information have been shared by the researchers who have worked. These research works are very useful source of research.

According to Ghosh (2015) plant products are used by the ethnic people specially people of forest areas as their daily need which indicates ecological significance.

It has been noticed that people lived closely to the forest areas completely depends upon plant products for different purposes. Bose & Chakraborty (2018) alluded that plants have played an important role throughout the globe in treating and preventing spread of diseases for thousands of years.

According to Paul & Dey (2022) human beings have been using plants for treatment of many regular diseases since time out of mind but the problem is that these herbal medicines are generally used by the tribal people or by the people lives in rural areas, information and uses of those herbal medicines is still unknown to the maximum people of our country. World Health Organization (WHO) states that in developing countries 65–80% of their population basically depends on plants for their primary treatment.

Now-a-days use of ethnobotanical information in medicative plant analysis has gained interest in the segments of scientific community, as this information helps to produce modern medicines. So we can say that in developing modern medicines ethnobotanical information is using. According to Sarkhel (2014) raw materials collected from plants and also from animals are not only used in preparation of traditional medicines, but also increasingly valued as ingredients in the preparation of modern medicines and herbal preparations.

As remarkable portion of our country's population consists of tribes Dutta & Dutta (2004), so there is always a chance to gather the information of those plants and their specific parts which are basically used by the tribes for their livelihood.

Ghosh, Das & Bandopadhya (2022) pointed out that our new generation is randomly using modern chemical based medicines inspite of herbal or plant based medicines this is one of the major problems as because this chemical based medicines are reducing the knowledge of ethnobotanical information among themselves and that's why they are failed to understand the importance of conservation of biodiversity.

3. Objective of the study

A. Studying monocot vegetation-

Village Belpahari has unique diversity. The vegetation of the study area provides useful information to researchers and administrator. Monocots of this area is the prime supplier of food, fuel, medicine, fodder, household materials etc.

B. Sustainable development-

Sustainable development is one of the best approaches to provide a good conservation strategy. On the basis of scientific use of local plants there is an opportunity to provide local employment.

C. Spreading ethobotanical knowledge-

People of advance countries specially new generation is totally unknown about the uses of plant materials as medicines and other purposes and they are depending on chemical based products which are quite harmful in case of long term uses. So, passing the ethnobotanical knowledge among unknown people will be a useful initiative as this information turn them to depend on plant based product as well as they will know the value of conservation of diversity.

D. Conservation-

Outsiders of the study area mainly tourists could make a huge change in the atmosphere that can prevent the growth and development of the local monocot plants. If Government and local people unitedly take immediate steps to protect the vegetation as well as the environment of this area then we can preserve this treasure trove from destruction.

4. Significance of the study

Monocots of a particular vegetation has its own value and they acts as the source of ethnomedicine, aesthetic value, key stone species, soil erosion control, maintaining food chain, control pollution etc. So from the scientific view this monocot vegetation should be protected to conserve the biodiversity of this area.

Our study mainly focus on the vegetation of monocotyledon plants of Dhangikusum, ecological and economical contributions of the vegetation, protect soil layer from erosion and to inform the local community about the value of the monocots and how to protect them for future aspect.

5. Study area

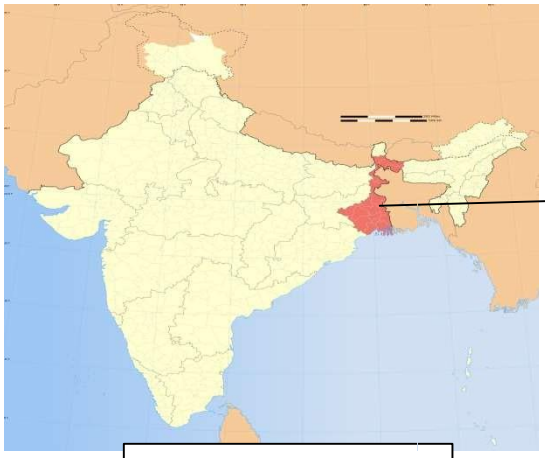

Fig:- Map of India

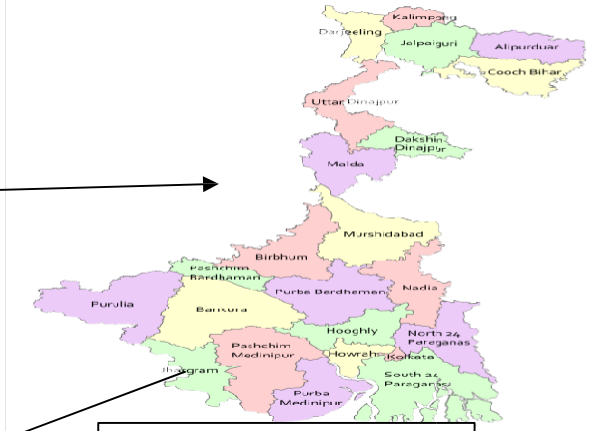

Fig:- Map of West Bengal

Fig:- Map of Jhargram

Fig:- Map of study area

6. Methodology of research work

The prime objective of this study is to record the ethnobotanical aspect of monocotyledons of Dhangikusum area for this we have to survey the study area on different season,(summer-april, monsoon- august, and winter-december). Plants of different habitat have to collect from various sites and have to identify with the help of Bengal Plants and Flora of British India. List of collected plant names have to be arranged alphabetically along with their scientific name, family name, habit, local name and their ethnobotanical uses.

To record the information of ethnobotanical importance of the plant for local and tribal people various areas of study area have to visit. To record the information regarding the medicinal importance of the plants, we have to talk to the local people and ask them the following questions-

1.Name of the plant

2.Purpose

3.Parts used

4.How administrated

Inspite of medicinal value many plants have other ethnobotanical value such as food, fodder, construction material, household product and jewellery in that case we have to record the following information by asking them the following question-

1. Name of the plant

2. Purpose

3. Parts used

To collect more information regarding uses of those plants we have to visit local mela and have to interview Forest personnel, school teachers, Government doctors, postal authorities, social worker and other personnel with experience in or posted in these regions for collecting fresh information or confirming the prior collected one.

In ethnobotanical study the related information is regarding literature, herbaria, tales etc. have to observe. The data have to collect along various lines in different manners – by enquiry, observation and interview.

A camera have to carry during survey and the most common and ethnobotanically important plants have to be photographed and have to made herbarium if needed.

7. Expected outcome

Village Dhangikusum is a rich source of plant diversity. This scientific study will reveal a rich diversity of medicinal plants along with some economically important plants which will be useful for the local community to treat themselves with plant products directly and they could also make business with other plant products. Random entry of tourists throughout the year is one of the probable reasons of continuous decrease the number of rare monocot plant species. But this is not the end if Government and local community unitedly take immediate steps to restrict the random entry of tourist then the treasure trove of Dhangikusum and its surrounding areas remain safe in future. Modern scientific study is needed to use these plants in proper way to spread the uses of these plants. This study will focus the conservation strategy which is essential for the protection of the vegetation.

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